UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,261	12/28/2000	Rainer Lienhart	042390.P10325	1229

7590 12/12/2006

Andre M. Gibbs
Blakely, Sokoloff, Taylor & Zafman LLP
Seventh Floor
12400 Wilshire Boulevard
Los Angeles, CA 90025-1030

EXAMINER	
SENFI, BEHROOZ M	

ART UNIT	PAPER NUMBER
2621	

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/752,261	LIENHART, RAINER	
	Examiner	Art Unit	
	Behrooz Senfi	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6 and 32-39* is/are pending in the application.

4a) Of the above claim(s) *5 and 7-31* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6 and 32-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's arguments filed 09/26/2006 have been fully considered but they are not persuasive.

Response to remarks:

Applicant asserts (remarks; page 6, last paragraph) that, Szeliski patent fails to teach or reasonably suggest "based on the random samples of transition effects in the video database, dividing the video stream into a plurality of sub-sections".

Examiner respectfully disagrees: Szeliski patent (i.e. fig. 2, col. 12, lines 47 – 55) discloses analyzing the video to find transition effects and stores these (which is equivalent to database including transition effects) and (i.e. fig. 15, which is a process of rendering module of fig. 2, col. 23, lines 31 – 67) illustrates the process of dividing the video based on the transition, as claimed.

In view of the above, claims 1 – 4, 6 and 32 – 39 are finally rejected for the same reason as set fourth in the last Office Action, dated 06/23/2006. The rejections are being restated for applicant convenience.

Claims 5 and 7 – 31 have been canceled.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 – 3 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Szeliski et al (US 6,636,220).

Regarding claim 1, Szeliski '220 discloses, method of detecting transition comprising; creating a video data base that includes random samples of transition effects (i.e. fig. 1, database 110, fig. 2, components 200 – 206 and col. 12, lines 56 – 65) and acquiring a video stream (i.e. fig. 1, camera 192) and based on the random samples of transition effects in the video database, dividing the video stream into a plurality of sub-sections (i.e. col. 12, lines 56 – col. 13, lines 27) and determining a probability of whether the random samples of transition effects are present at one of the plurality of sub-sections of video stream, wherein the random samples of transition effects are of a specific number and specific type (i.e. col. 5, lines 7 – 35, where the potential acceptable transition is the type of transition to ensure a smooth appearance) and embedding the probability into the sub-section of the video stream (i.e. fig. 2, rendering module 208).

Regarding claim 2, Szeliski '220 discloses, wherein determining the probability is performed by a classifier (i.e. col. 3, lines 48 – 55, col. 15, lines 60 – col. 16, lines 45).

Regarding claim 3, Szeliski '220 discloses, wherein the classifier is provided a fixed sized portion of the sub-section (i.e. col. 9, lines 50 – 54).

Regarding claim 6, combination of Szeliski and Bozdagi teaches, transition

effects comprises one or more of; a dissolve, a fade, a wipe, an iris, a funnel, a mosaic (Szeliski; fade-in and fade-out, col. 22, lines 39 – 45).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 4, 36 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Szeliski '220 in view of Bozdagi et al (US 6,493,042).

Regarding claim 4, Szeliski '220 teaches, detecting transition in video, creating a video data base that includes random samples of transition effects and acquiring a video stream, as discussed with respect to claim 1 above.

Szeliski '220 is silent in regards to, outputting a location of the one or more transition effects and duration of the one or more transition effects in the video.

Bozdagi '042 in the same field (i.e. col. 5, 19 – 55) teaches outputting a location of the one or more transition effects and duration of the one or more transition effects in the video.

In view of the above, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to implement such teaching, for the purpose of detecting the gradual changes in video images, as taught by Bozdagi '042 (i.e. col. 5, 19 – 55).

Regarding claim 36, Szeliski '220 teaches computer implemented system and

process of generating video animation, as discussed with respect to claim 1 above.

Szeliski is silent in regards to explicitly point out, detecting transition points in the video stream, automatically generating segment annotations in the video stream at the detected transition points.

Bozdagi '042 in the same field (fig. 25, abstract, col. 1, lines 55 – col. 2, lines 26) teaches, detecting transition points in the video stream, automatically generating segment annotations in the video stream at the detected transition points.

In view of the above, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify Szeliski's system and process of generating video animation in accordance with the teaching of Bozdagi, by detecting transition points/boundaries (like; dissolves, wipes, fade and cuts) for the purpose of automatic annotation of digital video sequence, as suggested by Bozdagi (i.e. see; col. 1, lines 45 – 67).

Regarding claim 39, the limitations claimed have been analyzed and rejected with respect to claims 36 above.

6. Claims 32 - 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Szeliski '220 in view of Wilcox et al (US 6,072,542).

Regarding claim 32, the limitations claimed are a system corresponding to the method of detecting transitions in a video stream of claim 1, which have been analyzed and rejected with respect to claim 1 above. Furthermore, as for the additional limitation, transition synthesizer module (see, fig. 2, synthesizer 202, col. 12, lines 26 – 31 of Szeliski).

It is noted that, Szeliski is silent in regards to, the classifier module to be trained to identify the transition effect.

Wilcox in the same field (i.e. col. 4, lines 37 – 52, and col. 5, lines 20 – 45) teaches the classifier module to be trained for identifying the transition.

In view of the above, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to implement such teaching and modify system and process of generating video animation of Szeliski in an effort to precisely detect the changes/transition effect in a video stream, as suggested by Wilcox (col. 4, lines 37 – 52, and col. 5, lines 20 – 45).

Regarding claims 33 – 34, combination of Szeliski and Wilcox teaches, transition synthesizer module generate the video sequence using random video shots from plurality of video stream, in claim 33 (Szeliski, fig. 1, 192 and fig. 2, synthesizer module) and transition effect is associated with the duration based on the probability distribution, in claim 34 (Wilcox, fig. 7).

Regarding claim 35, combination of Szeliski and Wilcox teaches, classifier module comprises re-scaling a time series of frame-based feature (i.e. Szeliski, col. 13, lines 15 – 27, analyzer "200" and synthesizer "202").

7. Claims 37 – 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Szeliski '220 in view of Bozdagi '042 and further in view of Wilcox '542.

Regarding claim 37, combination of Szeliski and Bozdagi teaches, detecting

transition in video (like; dissolves, wipes, fade and cuts), creating a video data base that includes random samples of transition effects and acquiring a video stream, as discussed with respect to claims 1 and 36 above.

Combination of Szeliski and Bozdagi is silent to explicitly mention, transition effects include a portion of the first shot and a portion of the second shot.

Wilcox in the same field (i.e. col. 3, lines 25 – 45) teaches transition effects including shots.

In view of the above, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to implement such teachings in an effort to precisely detect and distinguish the changes in a video stream, as suggested by Wilcox (col. 2, lines 35 – 43).

Regarding claim 38, combination of Szeliski, Bozdagi and Wilcox teaches, wherein the video transition sequence includes a portion of the first shot before the transition effect, the one or more transition effects, and a portion of the second shot after the one or more transition effects, reads in the fact that, Wilcox teaches "segment including shots and shot includes multiple frames" therefore the presence of a transition would be between two frames, in which one would be before the transition take place and the other one would be after the transition.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Behrooz Senfi** whose telephone number is **(571) 272-7339.**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Mehrdad Dastouri** can be reached on **(571) 272-7418.**

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(571) 273-8300

Hand-delivered responses should be brought to Randolph Building, 401 Dulany Street, Alexandria, Va. 22314.

Any inquiry of a general nature or relative to the status of the application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is **(571) 272-6000**.

B. M. S.

TUNG VO
PRIMARY EXAMINER